

**Methods of Eliciting Broadly Neutralizing Antibodies  
Targeting HIV gp41**

***Abstract***

The present invention is directed to the induction and characterization of a  
5 humoral immune response targeting "entry-relevant" gp41 structures. In its broadest  
aspect, the present invention is directed to methods of raising a neutralizing antibody  
response to a broad spectrum of HIV strains and isolates. The present invention targets  
particular molecular conformations or structures that occur at the cell surface of HIV  
during viral entry into host cells. Such a humoral response can be generated *in vivo* as a  
10 prophylactic measure in individuals to reduce or inhibit the ability of HIV to infect  
uninfected cells in the individual's body. Such a response can also be employed to raise  
antibodies against "entry relevant" gp41 structures. These antibodies can be employed for  
therapeutic uses, and as tools for further illuminating the mechanism of HIV cell entry.